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# Agricultural Situation

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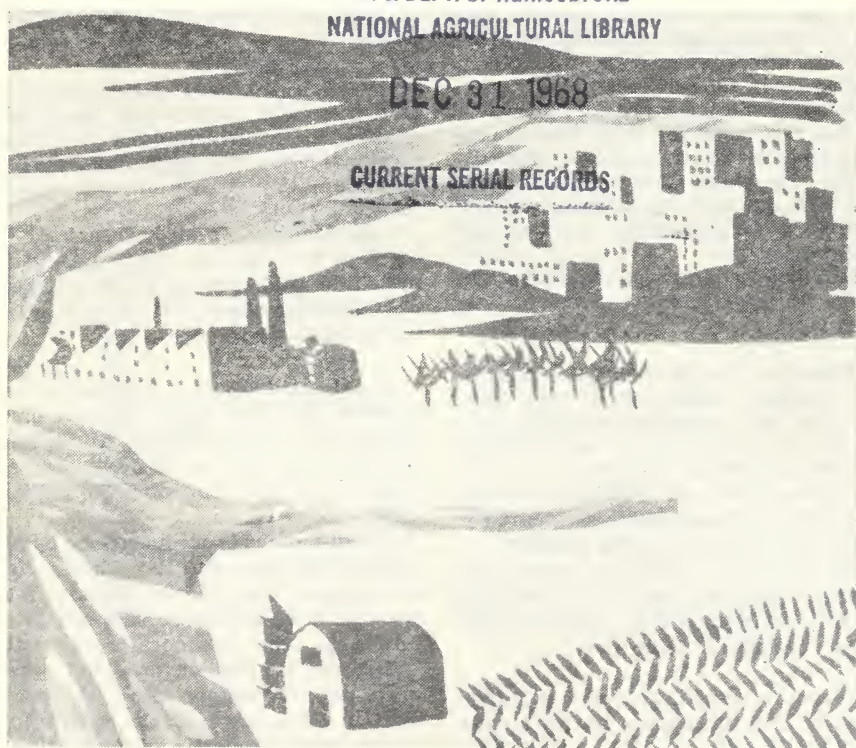
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## Changing Uses for Land

# FARMING VIES WITH OTHER LAND USES

Farmland has a central place in today's changes in land use. In many places, farmland competes with, and yields to, urban uses. At the same time, farmers compete among themselves for the best acres of cropland.

Agriculture frequently overlaps with forestry uses. On the one hand, farms enclose a part of the Nation's forest and woodland. On the other, millions of acres of public and private forest lands are also used for grazing.

Every 5 years, USDA assesses the changes in agricultural and other land uses. Between 1959 and 1964, the last survey year, important changes in land use occurred. Here is a summary of trends in major uses:

**Urban area growth is slowing.** The area in urban uses expanded an average of 420,000 acres, or 1.5 percent each year in 1959-64, a lower rate than in the preceding 5 years.

The area used for rural transportation facilities (roads, airports, and railroads) increased about 160,000 acres per year. Most of the increase was the result of expansion in the national highway system.

Much of the land used for both urban and transportation expansion was farmland.

**Specialized public lands are expanding rapidly.** Much land has been shifting to recreation, wildlife preserves, parks and forests, public installations, and public facilities.

Between 1959 and 1964, about 10 million acres in Alaska were set apart for wildlife refuges and public domain.

In addition to this, an average of nearly 1 million acres a year elsewhere in the U.S. shifted into recreation and other specialized public uses.

**Forest and woodland area is changing slowly.** The total area in forest use declined 15 million acres, or 2 percent. In Alaska, parts of the West, and the Southern Plains, substantial forest acreage has been cleared or reclassified to other uses. Offsetting this, many parts of the East and South are experiencing rapid reforestation.

**Grazing use continues to recede.** The vast area used for grazing has been contracting for years. Between 1959 and 1964, total grazing land declined by 2 percent. Along with this decline, the overall productivity of grazing land has increased.

Three kinds of land are used for grazing: permanent pasture and range, cropland, and forest land.

New lands opening in the West and cropland in the Midwest are being converted to permanent pasture. The total land in permanent pasture and rangeland rose from 633 to 640 million acres in 1959-64.

At the same time, the woodland area used for grazing dropped 20 million acres, and the area of cropland temporarily in pasture dropped 9 million acres.

**Barren land area is static.** The total land in tundra, marsh and desert has changed little in recent years. But these marginal lands will recede in the future as reclamation, irrigation and settlement take hold.

Three-fourths of all barren land in the U.S. is located in Alaska. An estimated 60 million acres of the Alaskan wasteland may have potential for grazing by cattle or reindeer.

**Unharvested cropland is trending up.** Between 1954 and 1966, the area harvested for crops declined 51 million acres. But the total area designated as cropland declined by only 26 million acres.

The difference is accounted for by an increase in the nonharvested categories of cropland: crop failure, summer fallow, idle land, soil-conserving use, pasture and other temporary purposes.

In 1966, 151 million cropland acres were not harvested, one-fifth more than in 1954. As a result of this increase, the proportion of cropland actually harvested was dropped appreciably in the later year.

H. Thomas Frey  
Orville E. Krause  
Clifford Dickason

Economic Research Service

# WHO OWNS THE LAND?

About 3 acres in 5 of U.S. land are privately owned. This includes about 1.3 billion acres of land held by private persons, institutions and companies, and 50 million acres of Indian trust and tribal lands.

Private land and Indian land accounts for nearly all of the cropland, two-thirds of the grasslands, pasture, and range, and over one-half of all forest lands. Most of the Indian land is in pasture, range and forests.

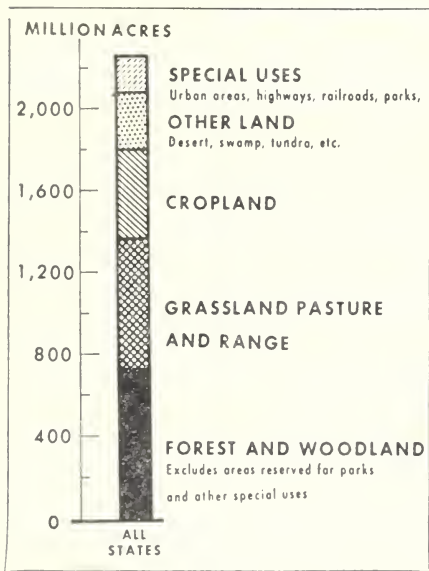
On the public's side of the fence there are some 888 million acres of land. All but 122 million acres of this are owned by the Federal Government.

Most of the Government's land is what is left of the public domain.

By geographical area, less than 10 percent of the Government's land is located in the eastern two-thirds of the country. Most Federal property is divided equally between Alaska and the States in the West.

Land held by State and local governments is about equally divided between 1) grassland pasture and range, 2) forest, and 3) other uses, including parks, roads, and institutions. It has gradually been acquired by land grants, tax reversion, gifts, and other means.

## AGRICULTURE WAS A MAJOR FACTOR IN OVERALL LAND USE IN 1964



Within U.S. borders, there are 2,266,000,000 acres of land.

Agricultural uses—cropland and grazing land—occupy one-half of the area, forests about one-third, and all other uses, the remainder.

Forests and woodlands cover 732 million acres, or 32 percent of the U.S. land area. This does not include 30 million forested acres in parks and preserves.

Two-thirds of the forest land can support lumbering. Almost one-fifth of all forest land is on farms.

Open, permanent pasture and range lands totaled 640 million acres in 1964, or 28 percent of the U.S. Most of this land is on farms.

Grazing also occurs on 57 million acres of cropland and 225 million acres of forest land.

One-fifth of the U.S., 444 million acres, was cropland in 1964. (In 1968, cropland occupies 435 million acres.)

Only 338 million acres in 1968 were actually used for crops (harvested, crop failure, and summer fallow). The remaining cropland was about equally divided between cropland pasture and soil conserving or idle uses.

Land with little economic value occupies 277 million acres, or one-eighth of the U.S. Included are deserts, tundra, swamps, dunes, and badlands.

The smallest area of land use, in the "special uses" category, is where most Americans live their lives.

Special uses includes: 1) urban areas, transportation corridors and airports, covering 55 million acres, or 2.4 percent of the land area in 1964, and 2) recreation parks and forests, wildlife preserves, military reservations, and public facilities covering 109 million acres.

*Economic Research Service*



## Easier to-eat Potatoes

### Ease Potato-eating Slump

Potatoes in the United States became less and less a diet staple as incomes and supplies of other foods advanced.

Over several generations following World War I, potato use dropped more than a fourth. But now per-capita consumption appears to have leveled. The recent stability has come largely from more use of convenient processed forms of potatoes.

Three products dominate potato processing: Chips, frozen (mostly french fries), and dehydrated. In the decade ended 1965, use of fresh potatoes decreased 22 percent while chips advanced 76 percent, and use of both frozen and dehydrated potatoes multiplied fivefold.

More personally, on a weekly basis, it went something like this. In 1955, the average person used 7 fresh potatoes and three-fourths of a processed potato at a total cost of 15 cents. But in 1965 each used only  $5\frac{3}{4}$  fresh potatoes plus the equivalent of 2 potatoes in processed form, for which the total cost was 22 cents. The price rise was due in part to the really short supply of fresh potatoes that year, along with the cost of added convenience.

Out of every potato dollar in 1965, some 32 cents went for convenience potatoes compared with 22 cents 10 years earlier. Although households in every area of the country used fewer fresh potatoes in 1965, largest drop was in the West at 12 percent; smallest falloff was in the South at about 6 percent.

More recent data tells us that last year production of all potatoes was 305 million hundredweight, of which some 31 percent was used for one or another convenience form.

### RIVERS AND RAINDROPS

An acre-foot—an acre square and a foot deep—that's the usual measuring stick for the average 402 billion gallons of water that rains, snows, or sleets over the United States every day. Roughly, the United States receives 4.5 billion acre-feet of water every year from precipitation.

About 70 percent of the water evaporates or is consumed in place by forests, nonirrigated crops, and range and other vegetation. The remaining 1.35 billion acre-feet soak into the ground or run off in streams and rivers. Thirty-one eastern States have approximately 1 billion acre-feet of this supply.

Streamflow supports nonwithdrawal uses such as power generation. It is also withdrawn for various municipal, agricultural, and industrial purposes. About 347 million acre-feet were withdrawn from streamflow and ground water in 1965. Around 75 percent of the water was returned after use.

The other 30 percent—87 million acre-feet—was consumed and was unavailable for reuse. Agricultural irrigation used almost 85 percent of the water not returned to streamflow.

*Economic Research Service*

## SLUICES AND SPRINKLERS

Irrigated acres in the United States increased from less than 8 million acres in 1900 to more than 37 million in 1964.

In that year, 17 western States contained more than 33 million irrigated acres, including nearly 6 million acres of irrigated pasture. Slightly more than one-half of the irrigated cropland in the West was used for livestock feed. Hay, harvested from 8.2 million acres, accounted for almost 30 percent.

In recent years, farmers have substantially increased the irrigated acreage of cotton, sorghums, wheat, corn, and sugarbeets.

Just over 30 percent of irrigated western cropland in 1964 contained the most valuable crops in terms of value per acre. Most significant were tree crops, vineyards, vegetables, and Irish potatoes, which occupied 12 percent of the irrigated land harvested.

In 1964, 3.7 million acres of cropland in the 31 Eastern States were irrigated. About 1.7 million were in Mississippi, Arkansas, and Louisiana, where rice, cotton, and soybeans dominate.

Another 1.2 million acres under irrigation were in Florida. Irrigated crops were mainly citrus and other fruits and vegetables.

*Economic Research Service*

## TURKEY TRENDS

### Less Cold Turkey Ahead

Prospects for less cold storage turkey, good prices, and an adequate poult supply will greet growers on New Year's Day.

Supplies of cold storage turkey may total around 230 million pounds on January 1, about 140 million pounds less than the year before.

Prices during the first half of 1969 should be substantially higher, partly due to smaller cold storage stocks.

A big cutback in birds marketed during the first half is likely to be up to one-fifth fewer than in the first half of this year. The cutback will be limited to heavy breeds, however.

In October, breeders reported intentions of keeping 3 percent more breeding hens in 1969 than this year. Poults should be in more plentiful supply and priced lower than in 1968. Feed prices may be slightly lower.

As a result, turkey output in the last half of 1969 may be up as much as 5 percent from the second half of 1968.

*Economic Research Service*

### Turkey Gobbler' Goes Up

Turkey gobbler', known more accurately as "civilian per capita consumption of turkey", is increasing.

This year, 8 pounds of ready-to-cook turkey will be consumed for each civilian in the population. The figure was a higher 8.6 pounds last year.

Looking backward, these amounts compare favorably with the 5.9 pounds of ready-to-cook turkey eaten per person in 1958, or the 3.1 pounds of 1948.

To put turkey gobbler' in its proper perspective, it is next to lamb and mutton as the least-consumed meat.

Here, in ready-to-cook weight for poultry, and carcass weight equivalent for red meat, are the amounts of all types consumed per civilian this year (Forecast):

	<i>Pounds</i>
Lamb and mutton-----	3.8
Turkey -----	8.0
Chicken -----	36.4
Pork (excluding lard)-----	65.4
Beef and veal-----	112.4

*Economic Research Service*

### Count Your Turkeys Before They Hatch

The old maxim about "not counting your chickens" doesn't apply when it comes to getting reliable forecasts of turkey production.

Early in January, the Statistical Reporting Service surveys turkey growers' intentions for the year ahead.

Widespread cooperation by growers in returning the questionnaires provides the industry with an early indication of the production planned for the year. This early forecast permits growers to adjust production to meet demands if necessary.

In January 1968, for example, breeders told of a 14 percent cutback in the number to be raised, compared with 1967. After the report was released, and after demands by the turkey industry for a larger decrease, producers actually cut 1968 production 16 percent below 1967.

The 1969 intentions report will begin

with a brief questionnaire mailed to turkey breeders in 48 States on about January 1.

On the basis of questionnaires returned, each State Office of SRS will make an estimate of growers' intentions for the entire State. Local growers thus will have an indication of how many light and heavy breed turkeys are planned for the State and for the U.S. in 1969.

The national turkey intentions report will be published in late January, 1969.

Questions about the number of turkeys on hand January 1, 1969, number marketed, and losses in 1968 round out the questionnaire. These will be used to make the final estimate of 1968 turkey production and to establish turkey numbers for the January 1 livestock and poultry inventory report.

*Statistical Reporting Service*



Based on Information Available December 1, 1968

### LOTS OF CITRUS

Hurricanes such as Gladys in October can be disguised blessings. In her wake, Gladys brought needed rains to Florida that more than offset wind damage. In fact, fruit drop there in October was actually lighter than usual. Early, Midseason, and Navel oranges are forecast about equal to those in the bumper-crop year, 1966-67—totaling 93 million boxes. But the entire U.S. orange crop (excluding California Valencias) is not equal to the record. At 156.2 million boxes it would be some 4 percent below the 1966-67 harvest, although 36 percent more than last year and 44 percent above average.

Grapefruit and lemons, tangelos and tangerines also are 'way up: Grapefruit (excluding California's "other areas") are expected at 55.3 million boxes, 36 percent better than average; lemons in California and Arizona at 19.2 million boxes are 16 percent above last season; and tangerines are expected to nearly double last year's output.

### FEED GRAINS BALANCED

The 1968 feed grain crop of 171 million tons is expected to be in fairly close balance with 1968-69 utilization—leaving about the same carryover into 1969-70. More feed grains have been going under loan this year and prices have strengthened from seasonal lows of last summer and early fall.

### HIGHER WHEAT PRICES?

By October, monthly farm prices for wheat had recovered 7 cents from the low July-August \$1.19 per bushel. Outlook for wheat prices in the rest of 1968-69 likely will see further strengthening if exports continue their recent lift and if producers keep using the loan program. But lower



prices earlier this season should mean average prices for 1968-69 will be near the \$1.25 national average loan level.

## **RYE DISAPPEARANCE**

Rye usage is not likely to change much from a year-earlier in 1968-69. Supplies of wheat and feed grains are large, so U.S. demand for rye may be only a bit above a year earlier. Exports are expected to be down.

Rye crop is forecast at 24.1 million bushels, and rye supplies at 43.1 million bushels. The average price for 1968-69 is not expected to reach last year's \$1.07 per bushel.

## **RECORD HIGH TOTAL INCOME**

Money that farm people have left after taxes—from all sources—promises to reach a record high average this year. At slightly over \$2,000, average disposable income per farm person likely will be about a fourth less than that of non-farm folk. That's about the same ratio as last year, but a narrower gap than earlier in the decade.

Farm prices and income are expected to decline from present levels in early 1969. This downward pressure will stem from larger supplies of farm products at a time when demand won't absorb it all. Consumer demand early in 1969 is likely to ease up because of slower growth in disposable income than in recent months.

## **MORE FED CATTLE, TOTAL LIVESTOCK**

Following the trend of this past summer, marketings of fed cattle also will be large this winter. Many more cattle on feed October 1 were in the weight groups expected to be marketed after the first of the year. And the trend of heavier marketings is expected to continue through 1969.

The all-livestock outlook through next summer points to heavier supplies than a year earlier, except for lambs. Plentiful feed grains at lower prices could lead cattlemen into even higher production, through extended feeding programs that lead to lower prices. However, continued restraint by producers would keep price drops modest.

## **LARGER SOYBEAN EXPORTS EXPECTED**

Despite keen competition from foreign oilseeds, soybean prospects for exports are improving this year. Soybean exports in 1968-69 may rise 10 to 15 million bushels over the 267 million of last season. Mostly this is because of lower U.S. prices.

Soybeans inspected for export are running at higher rates than last year, partly because of foreign anticipation of U.S. longshoremen's strike after December 20, when Taft-Hartley injunction ends.

# PORTRAIT OF A FRUIT TREE

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People around Mission and Monte Alto in the Rio Grande Valley of Texas sometimes wonder about those tourists taking pictures in the citrus groves.

Actually, the picture-takers are SRS Statisticians, perfecting new methods of estimating fruit crops.

While the Stats click away at the oranges and grapefruit, other researchers are photographing apples and peaches in Virginia; peaches, almonds and walnuts in California; and cherries in Michigan. Work on filberts in Oregon is under consideration.

The idea of all this picture-taking is to relate the number and size of fruits on a tree to the number observable in a photo. This way, selected trees could be sampled photographically each year to estimate the yield for the crop.

The researchers in Texas are also experimenting with the use of aerial photos to determine the fruit-bearing area, or canopy, of citrus trees. This, in turn, may be relatable to the yield.

When it is perfected the picture-counting techniques can be used in objective yield surveys of the type already used for corn, wheat, soybeans, cotton, tobacco, and potatoes.

Here's how fruit crops might be surveyed using the picture-taking method:

First, segments of orchard land would be randomly chosen. The random method insures that human bias

does not enter into the choice of samples. It also means that a broad cross section of crop conditions will be reflected in the samples.

Enumerators sent to the segments would probably select trees in much the same way as used for row crops: Starting at a certain corner of the orchard, choose the tree so many rows in and so many trees up.

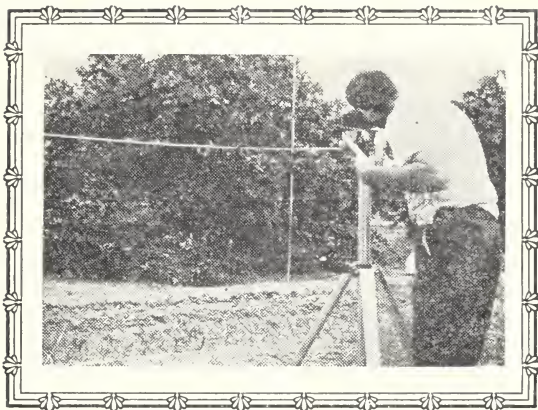
The next step would be to photograph the tree. In the Texas experiment, an aluminum frame in front of the tree divides the area into quadrants. Standing about 15 feet away, the enumerator takes a picture of each quadrant.

Finally, a certain percentage of the branches or trees photographed would also be hand counted.

Back at the Statistician's office, all this information would be used to figure out the total yield for each tree photographed. Several factors must be considered when the yield is projected:

—The actual fruit count from the hand-counted trees, obtained by the enumerator, is necessary to relate the count made from the picture to the total tree count for the current crop.

—The age of the trees photographed is also important. SRS fruit tree surveys have already determined the age of most commercial fruit trees.



—A deduction from the total yield must be made for fruit which are likely to be lost during the season.

Once the average yield for the trees photographed has been determined, it can be multiplied by the number of trees likely to be harvested to obtain the production estimate.

Objective yield estimates supplement surveys returned by volunteer crop reporters. The objective yield samples provide an in-depth study of widely scattered crops, while the grower reports contribute broad coverage of crop conditions.

This kind of double-checking is especially important for estimating fruit crops. Until the crop is harvested and actual warehouse figures are in, the only yield and production estimates are supplied by growers themselves. They submit their estimates of local yield prospects to SRS, which uses them in working up national and State fruit crop estimates.

Although these reports have proven basically reliable, they necessarily lack the mathematical precision of objective sampling. What's more, the objective yield survey provides accurate indications of fruit grade, crucial to the growers.

The Texas citrus project, in fact, was sparked by grower-members of the Texas Citrus Mutual. This promotional

organization, serving citrus groves in the Hidalgo County vicinity, sought greater accuracy in citrus estimates and much more detail in reporting of the Texas crop.

Mutual growers produce Marrs and other early-type oranges, Valencias, and grapefruit for the highly-competitive fresh markets. Accurate information on grades, yields and production of these fruit helps the Mutual promote and market their citrus.

The Texas Citrus Mutual provided trees for study and 500 hours of paid help this year for the picture-counting project. The helpers are three scholarship students from low-income families, studying at Pan-American College in Edinburg, Tex.

Technical know-how for the project comes from the Weslaco, Texas Remote Sensing Laboratory of the Agricultural Research Service. Administration and statistical research are being carried out by the Statistical Reporting Service, with field help from the Texas Crop and Livestock Reporting Service.

The picture-counting techniques are still in the early experimental stages. But when they are perfected, a rapid, accurate, and economical method of crop reporting will become available.

*Richard Allen  
Donald Von Steen  
Statistical Reporting Service*



# USE OF SOY PROTEIN IN FOODS HOLDS PROMISE BUT STILL PRESENTS PROBLEMS

Fish, fowl, and meat sources of protein for human nutrition are scarce and expensive in many countries. So science and industry are on the alert for cheaper, more plentiful protein sources. One of the best, it appears, is the soybean—a wonder-crop of modern U.S. agriculture.

Other oilseeds, it's true, can be sources of edible protein: peanuts, cottonseed, sunflower, and sesame. But U.S. research has centered on the protein potential of the soybean.

There are several good reasons why soybeans qualify as an excellent protein source for humans. Not the least is the edible protein yield per acre—one of the highest of all plant or animal sources.

In addition, the nutritional quality of soy protein is the best of all plant protein sources.

Finally, varieties of soybeans grow easily in a wide range of soils and climates.

Seven forms of soy protein account for most of the product sold for use in foods: Soy flour, grits, protein concen-

trate, protein isolate, enzyme-modified isolate, enzyme-active meal, and full fat soy flour. All 7 forms are hygienically processed from clean, dehulled soybean flakes. Except for the full fat flour, they're defatted.

Nutritionally, except for a slight deficiency in methionine, soy protein is well-balanced in the 10 amino acids essential to man. And it's a valuable source of the B vitamins and essential minerals. Further, most soy protein forms can be had with varying levels of fat or lecithin.

Baked goods, soy beverages, baby foods, and meat and mock-meat products among others can contain either soy flour and grits or concentrates and isolates. The soy flour or grits are more economical.

Except for beverages and baby food, soy protein is used more functionally than nutritionally: Giving bread a longer shelf life and a better browning effect, or keeping batter from absorbing too much fat while cooking doughnuts, or preventing pancakes from sticking to griddles.

Meat-type products—hot dogs, lunch meats, loaf and stew meats may contain some 3 to 3½ percent of their weight in soy protein. This helps retain fat, seal in natural juices, bind together product particles, and minimize cooking shrinkage. Processors also claim soy protein helps cleanse their machinery.

In baby and diet foods soy is a rich protein substitute. It is also used in a protein beverage mix made for sale to developing countries, where diets are protein deficient.

But no matter how wondrous its properties, soy protein has a vulnerable side to its nature that limits its uses. For one thing, soy flour and grits impart a bitter beany taste to products having more than 3 to 5 percent soy content. This is a large drawback to further use, but processors are developing new techniques to eliminate the problem.

Another handicap is flatulence (gas) production in digestion, preventing extended use of the economical flour and grits. This problem led a diet drink

## SOY FOODS TODAY

Simulated meat products are being produced by the food industry, with soy proteins taking the place of the meat.

Meat-like textures are achieved by extruding and actually spinning the soy into fibers. Thus several processors are producing mock ham, sausage, hot dogs, ground beef, poultry, fish, and some others. Only a bacon-flavored product is sold in regular food stores nationally, although others are being market-tested. Most are sold in specialty health and diet food stores.

Soy protein also has a knack for absorbing artificial flavors and colors. So processors combine it with imitation colors and flavors to simulate fish and meat. Meanwhile, researchers are attempting to improve the flavorings and colorings for these successful simulators.



Another limiting factor to further use of soy protein in meats is the Government regulation holding the content down to 3½ percent of the product.

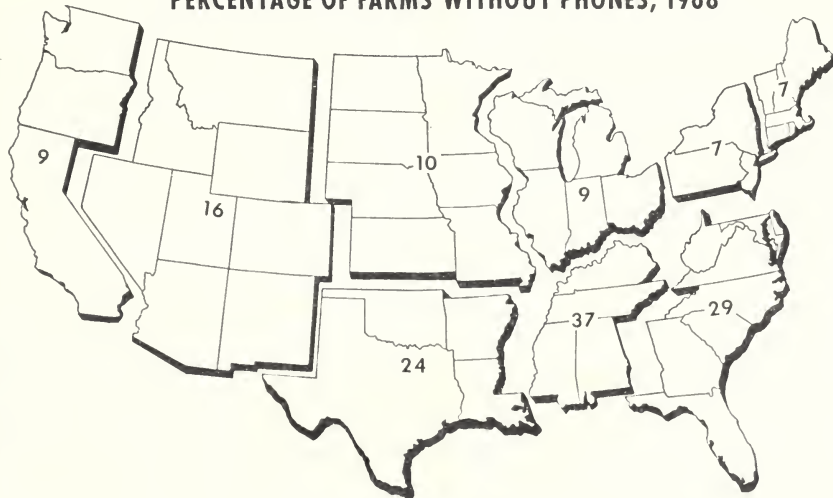
Within the decade, food specialists expect new emphasis to be placed on the nutritional values of soy protein. Meanwhile, soy protein continues to have an important role in foods both domestic and foreign.

## SOME FARMS STILL LACK TELEPHONES

The proportion of phone-less farms differs around the country. The highest proportion is found in the East South Central States and South Atlantic

Compared with the past, the percentage of farms which lack phones is small and shrinking. As against the 18 percent figure in 1968, 30 percent of all farms in 1961 did not have telephones.

### PERCENTAGE OF FARMS WITHOUT PHONES, 1968



NEG. SRS 222-68 (11) STATISTICAL REPORTING SERVICE

# HOW FATS AND OILS BECOME SO REFINED

How refined is refined? Well, when it comes to edible fats and oils, for one, the process often requires many steps: Alkalizing or steaming, bleaching, rearranging, hydrogenating, winterizing, deodorizing and plasticizing.

All of that processing is necessary, for example, in vegetable oil refining leading to shortening, margarine, mayonnaise, salad dressings, and others.

It's a big business when you consider that U.S. farmers last year produced some \$4 billion of oilseeds, butter, lard and other sources of edible fats and oils, much of it finding its way to market only after special refining.

The older "kettle" or "batch" method of refining is fast giving way to a more modern continuous method.

Alkalizing purifies crude oil by combining it with an alkali. This process or similar ones yield such major byproducts as soapstock and glycerine.

Soapstock and glycerine are required ingredients to process with crude oil for soaps. Glycerine is needed for protective coatings, cellophane, tobacco, explosives, and other nonedibles.

Lecithin is a major byproduct of the degumming process, needed in wetting agents, candies, baked goods.

A further refining step, bleaching, sometimes is called for. Refiners use natural materials, mostly clays or activated clays. Activated charcoal is sometimes used instead.

Hydrogenation—converting liquids to solids or semi-solids—enhances fat and oil stability and quality, helps halt deterioration from oxygen or flavor reversion.

Winterizing helps oils remain liquid at low temperatures. Oil is generally chilled and glycerides filtered out.

## EDIBLE OIL REFINERS KEEP RESERVE CAPACITY:

### For Bigger Crops . . .

In a decennial survey last year of the refiners of edible fats and oils, researchers noted maximum refining plant capacity has been advanced half again what it was in 1956-57. And by 1970 the industry expects to raise that another 10 percent, although last season they operated at only about two-thirds of capacity.

What appears at first glance an extravagant investment is not, if we examine the record. One of the main sources of edible oils, oilseed crops, have been growing from year to year. What was maximum plant capacity in 1956-57 was actual production 10 years later—between 8 and 9 billion pounds.

Thus, if the industry does not continue planned expansion well in advance of need, it stands to develop shortages. Shortages still could occur if present plans are not carried out.

Last season's total pack was 8.6 billion pounds. Although more liquid than solid, it was roughly half and half—4.5 billion pounds liquid, 4.1 billion pounds solid.

Most of the liquid products were

shipped in bulk. Some 16 percent were in gallon or smaller sizes, only 5 percent in drums or 5-gallon tins.

Some 80 percent of the refiners do the whole job—refining from the crude stage through end product.

### . . . And Plant Tie-ups

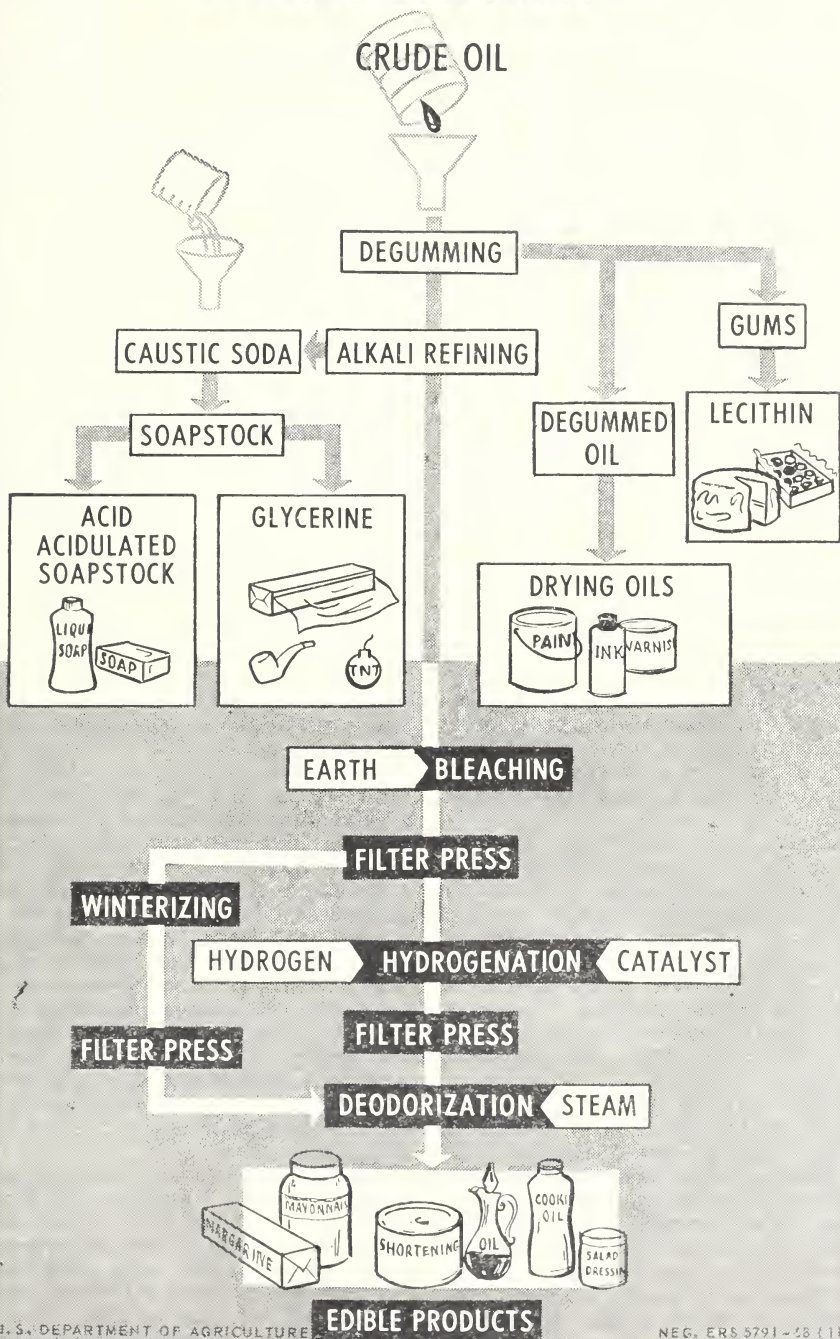
USDA economists have come up with some of the main bars to full production in fats and oils refining.

One is the limited capacity of individual pieces of equipment, difficult to plan for. Another is plant shutdown from problems with equipment repair and maintenance. Another factor is the varying availability of skilled manpower and transportation facilities.

But, despite such drawbacks, the industry, on the average, worked two or three 8-hour shifts daily, in 6-day weeks for about 48 weeks in the year ended September 1967. These schedules were kept when producing intermediate and finished edible fat and oil products. A somewhat shorter schedule ensued for packaging work.

Naturally, maximum production calls for continuous year-round operation of all processing and packaging facilities.

# REFINING VEGETABLE OIL





## WHAT'S THE LAFTA ABOUT?

This LAFTA isn't for fun, it's for real. Behind the LAFTA is the aim of 11 Latin American Nations to expand trade with one another, and by banding together, to cut a larger piece of the pie of world trade. Despite obstacles, they are doing both.

The Latin American Free Trade Association was born 7 years ago, when nine of the current 11 members agreed to liberalize within-bloc trading.

The nine—Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru, and Uruguay—were joined 5 years later by Bolivia and Venezuela. They have agreed to liberalize one-fourth of a Common List of Trade items every 3 years until, by 1973, they shall free-trade all such items.

But LAFTA has its problems. Not the least is reluctance of members to include prime products such as wheat in free trade lists, lest they jeopardize domestic production.

Another obstacle has been the members' overcautious attitude toward pro-

viding tariff and non-tariff concessions on National Lists of trade items negotiated annually.

There has been progress, surely. But despite a tripling of items on the annual lists between 1962 and 1968 (these now total 10,000 items) many were only small reductions of duties or trade concessions on items seldom traded within the bloc: chemicals, machinery, and the like.

Favoring national rather than bloc interests in this way has slowed progress in free trade because of farm products needed to shore up holes in domestic production. Further, LAFTA permits members to equalize prices on items, even when they have been already conceded on the lists.

Still, LAFTA has flourished. Before LAFTA began operating in 1961, a trade boom had sharply declined from \$1 billion in the 1950's to \$657 million. But by 1966, within-bloc trade had again risen, surpassing the old record and more than doubling by 1966 to \$1.4 billion.

## ALPHABET BLOCKS AND U.S. TRADE

LAFTA and EEC are not scrambled noodles in an alphabet soup. They're initials for a couple of the regional free trade associations and common markets that are building much of today's world trade.

LAFTA, the Latin American Free Trade Association, and EEC, the European Economic Community, take nearly \$2 billion worth of U.S. farm exports each year.

Closest to home, and growing in importance, is LAFTA. Total trade of its members doubled in value in about 5 years, and amounted to an impressive \$14 billion in 1966, mostly farm products.

Chief non-LAFTA supplier is the United States, whose farm exports to these countries since 1955 have been generally upward. Last year such U.S. exports to LAFTA totaled \$392 million, some three-fourths for cash, including barter. LAFTA concessions and restrictive trade policies in some member countries have resulted in lower U.S. exports of cotton, wheat, fruits and some fats and oils.

EEC's the world's biggest bloc trader and biggest U.S. group customer. However, for a decade EEC has imported about the same share of its agricultural needs from U.S. sources—hovering around 12 percent—mostly grain products. In 1967 U.S. cash sales to EEC were a healthy \$1.5 billion. So U.S. farmers supply nearly a third of such EEC needs.

EEC and LAFTA farm trade is relatively noncompetitive. EEC's chief world exports are animals and animal products, grains and preparations, and vegetables. Its top member-exporter is the Netherlands. But LAFTA, where Argentina is the biggest shipper of farm products in dollar value, exports mostly coffee, animal products, fruits and nuts, cotton and grains.

EEC and LAFTA also are important trading partners. Although EEC farm exports to LAFTA last year were a relatively light \$62 million, these have been gaining steadily, and have risen by more than one-third since 1965. LAFTA last year shipped some \$1.5 billion worth of products to the EEC.





# SAM STAT SAYS

## "Check My Data"

### A brief roundup

DECEMBER 1968

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Raymond Bridge

■ The Crop Reporting Board estimates pecan production at 168 million pounds, 23 percent less than in 1967. ■ Sorghum grain won't quite reach last year's production level. The estimate of 755 million bushels falls 1 percent short of the 1967 record. ■ Space story? Row spacing and plant populations for corn vary from State to State. A 1968 SRS survey found row spaces in sample plots averaging from as little as 36.6 inches in Ohio to as much as 38.8 in the South Atlantic and South Central States. Plant population per acre varied from 11,200 in the South Central States to 18,200 in Wisconsin. But compared with earlier surveys, corn plant populations have been trending up in all areas. ■ There were 4 percent fewer sheep and lambs on feed this November 1, compared with 1967, in 7 major feeding States. ■ There were 9 percent more cattle and calves on feed for slaughter in 6 selected States, compared with November 1, 1967.

**THE HIDDEN FIFTH.** About one-fifth of our average grocery bill isn't food at all. It's something to wear, or read, or listen to, or clean with, or cook with.

For every dollar's worth of food that goes into our supermarket basket, we put in 20 cents worth of laundry soap, insecticides, paper towels, hi-fi records, and other nonfood items.

About 90 percent of all sales of cat and dog food go over the supermarket checkout counter, along with about half the hair spray, aspirin and tooth-

paste we buy for personal and family use.

**POPCORN.** It takes about 500 million pounds of popcorn-on-the-cob a year to meet yearly demand.

Popped, it would be enough to supply about a quart a year for everybody, since 1 cup of popcorn pops into 30 to 35 cups.

Today's popcorn processors offer various flavors and add more colors, too—such as pinkish cinnamon or golden garlic.

What makes the popcorn pop? The kernels explode from pressure of steam generated when the

heat hits the moisture inside the hard outer coat. **SWEATER GIRLS** and tweedy young men are among the wool industry's best friends.

Perhaps that's one reason why per capita use of wool in the United States is expected to hold its own in 1980 at about 2.7 pounds per person.

Meanwhile, manmade fiber inroads into total fiber use continue to rise.

Last year, synthetic fibers accounted for 27 percent of fiber consumption in the wool industries of six countries. This represented a rise of 3 percent from 1966.

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